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EXAMINER
ADDY, ANTHONY S

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 July 2006</u>.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-19 and 23-41</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-19 and 23-41</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>20 July 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All b) ☐ Some * c) ☐ None of:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>07/20/2006</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to applicant's amendment filed on July 20, 2006.

Claims 20-22 has been cancelled and new **claims 25-41** has been added. **Claims1-19**

and **23-41** are now pending in the present application.

Information Disclosure Statement

2.   The references listed in the Information Disclosure Statement filed on July 20,

2006 have been considered by the examiner (see attached PTO-1449 form or

PTO/SB/08A and 08B forms).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1-12, 14-17, 19-34, 36-39 and 41** are rejected under 35 U.S.C. 102(e) as

being anticipated by **McGregor et al., U.S. Publication Number 2004/0058652 A1**

(hereinafter McGregor).

       Regarding claims 1 and 2, McGregor teaches a method for determining the

performance of a mobile terminal (*e.g., mobile device 110*) within a wireless

communications network (*100*) (see p. 5 [0142] and Figs. 1 & 11), the method

comprising the steps of: receiving messages transmitted via the communications

network associated with user transactions; receiving messages transmitted via the

communications network associated with mobile terminal type information (see p. 3

[0048], p. 10 [0226] and Fig. 11); correlating data within the received user transaction

messages with data within the mobile terminal type information messages; and deriving

one or more performance indicators (*e.g., MQoS metrics such as BER, SIR, FER,*

RSSI, e.t.c. reads on one or more performance indicators derived at the MQoS-S 150)

by mobile terminal type information from the correlated data (see p. 10 [0227], p. 12

[0257] and p. 13 [0267 & 0270]).

Regarding claim 3, McGregor teaches all the limitations of claim 2. In addition,

McGregor teaches a method, further comprising the steps of: acquiring messages

transmitted via the communications network associated with transactions; and acquiring

messages transmitted via the communications network associated with mobile terminal

type information (see p. 3 [0048], p. 10 [0226] and p. 13 [0267 & 0270]).

Regarding claims 4 and 26, McGregor teaches all the limitations of claims 1 and

2. In addition, McGregor teaches a method, wherein the correlating step associates the

mobile terminal type information with one or more types of mobile terminal (see p. 3

[0048], p. 12 [0257] and p. 13 [0267]).

Regarding claims 5 and 27, McGregor teaches all the limitations of claims 1 and

2. In addition, McGregor teaches a method, wherein the received mobile terminal type

information messages include mobility management signalling messages (see p. 8 [0201]).

Regarding claims 6 and 28, McGregor teaches all the limitations of claims 5 and 27. In addition, McGregor teaches a method, wherein the mobility management signalling messages include the International Mobile Equipment Identity for the mobile terminal type (see p. 8 [0201]).

Regarding claims 7 and 29, McGregor teaches all the limitations of claims1 and 2. In addition, McGregor teaches a method, wherein the received user transaction messages include user data (see p. 8 [0201]).

Regarding claims 8 and 30, McGregor teaches all the limitations of claims and 2. In addition, McGregor teaches a method, further comprising the step of reconstructing the user transactions from the data within the received messages (see p. 10 [0227] and p. 13 [0270]).

Regarding claims 9 and 31, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, wherein the received user transaction messages include session management signalling messages (see p. 10 [0226]).

Regarding claims 10 and 32, McGregor teaches all the limitations of claims 9 and 31. In addition, McGregor teaches a method, wherein the step of deriving the performance indicators is based on data within the session management signalling messages (see p. 10 [0226]).

Regarding claims 11 and 33, McGregor teaches all the limitations of claims 9 and 31. In addition, McGregor teaches a method, further comprising the step of

reconstructing user sessions from the data within the received user transaction messages (see p. 10 [0227] and p. 13 [0270]).

Regarding claims 12 and 34, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, wherein the step of deriving the performance indicators is based on the period of time measured from the transmission of a message and the receipt of an acknowledgment signal for the transmitted message (see p. 6 [0178]).

Regarding claims 14 and 36, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, wherein the step of deriving the performance indicators is based on the ratio of user aborted messaging transactions (see p. 10 [0220 & 0230]).

Regarding claims 15 and 37, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, wherein the step of deriving the performance indicators is based on the number of lost packets estimated from messaging retransmissions (see p. 6 [0179]).

Regarding claims 16 and 38, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, wherein the performance indicators are benchmarked by mobile terminal type (see p. 3 [0048], p. 12 [0257] and p. 13 [0267]).

Regarding claims 17 and 39, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, wherein the messages are acquired from an open interface (see p. 5 [0143] and p. 8 [0206]).

Regarding claims 19 and 41, McGregor teaches all the limitations of claims 1 and 2. In addition, McGregor teaches a method, further comprising the step of adjusting the frequency of mobile messaging signals required by the communications network to increase the number of messages containing data to identify the mobile terminal type (see p. 12 [0257]).

Regarding claims 23 and 24, McGregor teaches an apparatus (*e.g., server (MQoS-S) 150*) for determining the performance of a mobile terminal (*e.g., mobile device 110*) within a wireless communications network (100) (see p. 5 [0142] and Fig. 1) comprising: a first message receiving unit for receiving messages transmitted via the communications network associated with user transactions; a second message receiving unit for receiving messages transmitted via the communications network associated with mobile terminal type information (see p. 3 [0048], p. 10 [0226] and Fig. 11); a derivation unit for deriving, from the received user transaction messages, one or more performance indicators (*e.g., MQoS metrics such as BER, SIR, FER, RSSI, e.t.c. reads on one or more performance indicators derived at the MQoS-S 150*) for the user transactions; and a correlation unit correlating the performance indicators regarding the user transactions with data within the mobile terminal type information messages (see p. 10 [0227], p. 12 [0257] and p. 13 [0267 & 0270]).

Regarding claim 25, McGregor teaches all the limitations of claim 1. In addition, McGregor teaches a method, further comprising the steps of: acquiring messages transmitted via the communications network associated with transactions; and acquiring

messages transmitted via the communications network associated with mobile terminal

type information.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 13 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **McGregor et al., U.S. Publication Number 2004/0058652 A1 (hereinafter**

McGregor) as applied to claims 1 and 2 above, and further in view of **Krishnamurthi et**

al., U.S. Publication Number 2003/0142629 A1 (hereinafter Krishnamurthi).

Regarding claims 13 and 35, McGregor teaches all the limitations of claims 1 and

2. McGregor fails to explicitly teach a method, wherein the step of deriving the

performance indicators is based on at least one of messaging downlink/uplink

throughput and IP level throughput.

In an analogous field of endeavor, Krishnamurthi teaches techniques to test

performance of terminals and access points in a CDMA system, wherein collected

performance data may thereafter be used to derive various performance metrics such

as throughput (see p. 2 [0032]). According to Krishnamurthi the process may further be

used to determine various performance metrics such as, for example, forward link user

throughput, forward link sector throughput, and so on (see p. 5 [0063]).

It would therefore have been obvious to one of ordinary skill in the art at the time

of the invention to modify McGregor with the teachings of Krishnamurthi to include a

method, wherein the step of deriving the performance indicators is based on at least

one of messaging downlink/uplink throughput and IP level throughput, in order to

monitor QoS in a wireless network without reducing communication efficiency, and to

provide an optimum packet-based mobile service experience for consumers of the

wireless network.

7.   Claims 18 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **McGregor et al., U.S. Publication Number 2004/0058652 A1 (hereinafter**

McGregor) as applied to claims 1 and 2 above, and further in view of **Jha et al., U.S.**

Publication Number 2004/0138807 A1 (hereinafter Jha).

Regarding claims 18 and 40, McGregor teaches all the limitations of claims 1 and

2. Although, McGregor teaches a database for storing test results and the database

may include other historical data such as a date time stamp so that the data may be

retrieved and formatted as required to show test results during different times of the

day, under different weather conditions (see p. 10 [0229]), McGregor fails to explicitly

teach a method, further comprising the step of constructing a performance database

having fields that identify the type of mobile terminal and the type of user transaction

and corresponding fields that include calculated or estimated performance indicators.

In an analogous field of endeavor, Jha teaches constructing a performance database having fields that identify the type of mobile terminal and the type of user transaction and corresponding fields that include calculated or estimated performance indicators (see p. 5 [0049] and Fig. 5).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify McGregor with the teachings of Jha to include a method, further comprising the step of constructing a performance database having fields that identify the type of mobile terminal and the type of user transaction and corresponding fields that include calculated or estimated performance indicators, in order to advantageously use mobile station equipment identity information to correct manufacturing defects, fix design flaws and software bugs, track performance, optimize performance from a database or look up table as taught by Jha (see p. 2 [0015] and p. 5 [0049]).

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Osborne, U.S. Patent Number 6,088,588 discloses method and wireless terminal for monitoring communications and providing network with terminal operation information.

Fok et al., U.S.Publication Number 2006/0198359 A1 discloses apparatus and methods for determining voice and/or data processing performance of a wireless device.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY S. ADDY whose telephone number is (571)272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony S Addy/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617